

mentioned by other workers but which he considers to be of taxonomic importance.

In reply I would like to make it clear that I am probably the only individual concerned in this controversy who has examined the type-specimens of *Taphius andecolus* and *Biomphalaria smithi* and who has also dissected topotype material of both these species and of *Platytyphius heteropleurus*. In my application to the Commission I quoted published papers by other authors for the sake of brevity and in order to avoid tedious repetition.

Walter's comparisons between the gross genital anatomy of *Biomphalaria* and *Bulinus* are irrelevant to the discussion and he appears to have overlooked Larambergue's excellent description of *Bulinus* (*Bull. Biol.* 73(1-2), 1939) and my own histological comparison between the reproductive system of *Bulinus* (*Bull. Brit. Mus. (Nat. Hist.) Zool.* 5(1) : 1-28, 1957) and that of *Biomphalaria* (Malek, *Trans. Amer. micr. Soc.* 73(3) : 285-296, 1954).

Walter's point concerning the nidamental gland in *Biomphalaria* and *Taphius* is based on differences in their superficial appearance and relative size. This structure varies in appearance with the maturity of the snail and it is usually more voluminous in forms whose whorls increase rapidly in size than it is in the long-bodied species whose whorls increase less rapidly. This is excellently illustrated by several species of the planorbid genus *Gyraulus*. The two species on which Walter appears to have worked are *Biomphalaria pfeifferi* and *Australorbis glabratus*, both species with relatively slowly increasing whorls, and his comparison is made with Paraense's illustrations and description of *Taphius andecolus*, a species whose whorls increase in size very rapidly. Much the same argument applies to his discussion of the prostate. The organ in *Taphius* is definitely not like that in *Bulinus* and the prostate in *Biomphalaria smithi* is of a more contracted form than that in the long-bodied species.

Walter quotes F. C. Baker as saying that the embryonic whorl of *Platytyphius* is punctate and he uses this statement to suggest that if, perhaps, the embryonic whorl of *Taphius* is also punctate then it will be evidence of its closer relationship to *Bulinus* than to *Biomphalaria*. Walter has failed to differentiate between the coarse, regular punctate pattern present in *Bulinus* and the extremely fine punctation present in most *Biomphalaria* (which Walter appears to have overlooked). I have compared topotype specimens of *Platytyphius heteropleurus* with the type series of *Taphius andecolus* and *Biomphalaria smithi* and all three species have an extremely fine punctate sculpture of the embryonic whorl which is also present in laboratory bred specimens of *Biomphalaria sudanica* and *B. rueppelli*.

Finally Walter draws attention to the distinctive shell shape of *Taphius andecolus* and suggests that this alone is sufficient reason for the wide generic separation of *Taphius* and *Biomphalaria*. *T. andecolus* is in fact a lake-dwelling species (L. Titicaca) and it resembles some of the *Biomphalaria choanomphala* species group from the East African lakes more closely than these lake forms resemble the other African *Biomphalaria*.

In the light of Walter's comments I have re-examined the material available and have no reason to alter my original opinion, shared with many other workers who have had personal experience of the problems involved, that *Taphius* and *Biomphalaria* are congeneric. I also continue to believe that the best interests of nomenclature will be served by the suppression of the names *Planorbina*, *Taphius* and *Armigerus*.

COMMENTS ON THE PROPOSED VALIDATION OF *PARTHENOPE* FABRICIUS, 1798. Z.N.(S.) 1487

(see vol. 19, pages 58-60, 314)

By John S. Garth (*Allan Hancock Foundation, Los Angeles, California, U.S.A.*)

The following comments are submitted for consideration by the International Commission on Zoological Nomenclature in connection with the proposal by Dr. L. B. Holthuis calling for the suppression, under the plenary powers, of the

names *Parthenope* Weber, 1795, and *Daldorfia* Rathbun, 1904 (Crustacea Decapoda). As one of the two American authors mentioned in paragraph 4 of the Holthuis application as having used these names in monographic works, and as the only surviving author, I feel that my position in so doing, and that of other writers who have followed the late Mary J. Rathbun in publications of less than revisionary scope, should be made a matter of record.

Dr. Holthuis has been completely fair in his statement of the facts in this case. The legality of Miss Rathbun's action in selecting *Cancer longimanus* Linn., 1758, to be the type-species of *Parthenope* Weber, with its attendant consequences, is freely admitted by him, and needs no further comment. It is only his conclusion that a change is needed "in the interest of stability and uniformity of carcinological nomenclature" that is questioned, when the arguments presented would appear to justify such a change only as a matter of convenience to a larger number of workers, who have found it not to their liking to follow the legally correct position in this instance.

Fortunately for American carcinology, there has never been any indecision over which of the two names, *Parthenope* Weber, or *Lambrus* Leach, 1815, to use for the dozen or so species of the genus containing *Cancer longimanus* that occur in amphi-American waters. The matter was settled forthrightly, and at for us an early date, by a competent worker who proved to be years ahead of her contemporaries in recognizing the importance of, and in applying impartially, the rule of priority to systematic studies. Had European carcinologists followed suit, the comparative stability enjoyed since 1904 in carcinological nomenclature on this side of the Atlantic might have been extended to the other side as well, and Holthuis would not have been obliged to enumerate a longer list of authors who have honoured the 1904 change rather in its breach than in its acceptance. The American species have rarely, and many of them never, been referred to by names other than those established by Rathbun in 1904, and, having enjoyed the use of these legally established names for over half a century, American workers are not eager to abandon this fortunate state for a return to the pre-existing situation.

In contrast to the non-American authors, at least some of whom have used the names in the sense that Holthuis would like to see abandoned, the American authors have been uniformly consistent in this regard, none to my knowledge having adopted the European nomenclature even when dealing with Indo-west Pacific species. It was to preserve this record for consistency, as well as to uphold a position taken by an admired colleague, a position which I believe to have been the correct one, that I elected to follow Rathbun in my revision of the *Brachyura Oxyrhyncha* of the Pacific Coast of America (Garth, 1958, Allan Hancock Pac. Exped. 21(1) : 432-458). I assume that those who did likewise were similarly motivated.

Before 1940, the question of which name, *Parthenope* Fabricius, 1798, or *Daldorfia* Rathbun, 1904, to apply to the genus containing *Cancer horridus* Linn., 1758, was for American writers an academic one, since the genus was not known to occur in the New World. In that year, however, Glassell (in Garth, 1940, Allan Hancock Pac. Exped. 5(3) : 67), in a publication not referred to by Holthuis, described the first American species. After correspondence with F. A. Chace, Jr., C. H. Edmondson, and others, Glassell described the American species under the name *Daldorfia*, and it also, to my knowledge, has never been called by any other name. These facts are not stated in the Holthuis proposal.

In conclusion, the position taken by American carcinologists since 1904 in this and similar matters, including the late Mary J. Rathbun and S. A. Glassell, who cannot now speak for themselves, may be summed up in the words of Commissioner Hemming (1962, *Bull. zool. Nomencl.* 19(3) : 153) : "I consider that, when . . . there is a substantial usage both for the correct name for a given taxon and for an incorrect name for that taxon, preference should be given to the valid name by the Commission and that the plenary powers should accordingly not be used."

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden,
The Netherlands*)

I have just received *Bull. zool. Nomencl.* 19(5) which contains (on p. 314) the comments by Dr. D. S. Johnson on my proposal to the Commission relating to the above generic names. I should like to make the following remarks concerning Dr. Johnson's statements:

(1) I was not aware that Miss Buitendijk's (1939, *Temminckia* 4 : 265, 266 ; 1950, *Bull. Raffles Mus.* 21 : 69, 70) adoption of the "correct" nomenclature, in which she was followed by Tweedie had been accepted by all zoological institutions in Malaya and used in the popular literature there. I have to admit that this is one more argument against the use of the plenary powers in this case.

(2) On the other hand by restricting his judgment by the situation as it occurs in Malaya, Dr. Johnson gives a one-sided picture, and his remark that the acceptance of my proposal "will provoke widespread nomenclatural confusion and instability in the Indo-Australian area" is somewhat exaggerated to say the least. Mr. Chuang's 1961 popular "On Malayan shores" which I have not seen is cited as a non-specialist work using the "correct" nomenclature. However, in the popular literature in Japan, which, because of its beautifully executed coloured figures, is used not only in Japan but also in the rest of the Indo-West Pacific region and known over the entire world, the "incorrect" nomenclature is adopted (*Illustr. Encycl. Fauna Japan*, 1954 : 700, 701 ; Utinomi, 1956, *Sea Shore Animals Japan* : 78, 80 ; Okada, Taki, Sakai & Abe, 1958, *Illustr. Pocketbook Japan. Fauna in Colour*, 2 : 125 ; Sakai, 1960, *Encycl. Zool. Illustr. Colour* 4 : 53), while this nomenclature, e.g. also is used in the popular "Petite Histoire naturelle des Etablissements Français de l'Océanie" (2 : 91) by Chabouis (1954).

(3) That I did not mention many authorities later than 1950 (apart from Balss, 1957, I did also cite Monod, 1956 as using the "incorrect" nomenclature) is because I only cited the more important manuals, which will exert their influence for a long time to come. So, workers on European Parthenopidae will use Bouvier's (1940), and Zariquiey's (1946) works, simply because there are no more recent handbooks. These books as well as the more recent papers and popular books (like Luther & Fiedler's 1961, *Unterwasserfauna der Mittelmeerküsten* : 153) dealing with European crabs all use the "incorrect" nomenclature. For West Africa Monod's (1956) and for South Africa Barnard's (1950) splendid monographs will be used by anyone studying the crabs of these regions. For the Indo-West Pacific area the papers mentioned by me in my proposal are still the fundamental monographs. Many authors publishing on the Indo-West Pacific crabs since 1950 do use the "incorrect" nomenclature, these authors (like Pillai (1951) and Chhapgar (1957) for India, Dawydoff, 1952 for Vietnam, Forest & Guinot, 1961 for Polynesia) have not been cited by me since their papers like those by Buitendijk and Tweedie, though important, are not actual handbooks. As far as European literature since 1950 is concerned I know of no author using the "correct" nomenclature. The same is true for West and South Africa. Therefore the authors who since 1950 used the incorrect nomenclature certainly cannot be defined as just "a few European workers" as Dr. Johnson wrote.

Concluding I may remark that Dr. Johnson's indication that the "correct" nomenclature has been generally accepted everywhere in Malaya is a very worth while bit of information, which was not known to me, and which does weaken my arguments for the suspension of the Rules. But as far as I know this situation does not exist anywhere else in the Indo-West Pacific area except perhaps in Hawaii, though Edmondson (1946, *Spec. Publ. Bishop Museum* 22 : 274, 275) used the generic name *Parthenope* for both genera.